

Abstract of the disclosure

A conductor assembly that contains a flexible conductor and a layer of nanomagnetic material coated onto the conductor. The layer of nanomagnetic material has a tensile modulus of elasticity of at least about  $15 \times 10^6$  pounds per square inch, an average particle size of less than 100 nanometers, a saturation magnetization of from about 200 to about 26,000 Gauss, and a thickness of less than about 2 microns.